FACT SHEET FOR STATE WASTE DISCHARGE PERMIT NO. ST-9211

TiSport, LLC

SUMMARY

TiSport, LLC is seeking reissuance of its State Waste Discharge Permit for the nonferrous metals fabrication facility in Kennewick, Washington. The facility manufactures wheelchairs and bicycle frames from titanium.

Presently, discharges from the facility consist of process wastewaters, sanitary wastewater and storm water. Process wastewaters consist of rinse waters from the bike frame and wheel chair production lines which are discharged to the Kennewick Publicly Owned Treatment Works (POTW). Sanitary wastewater is also discharged to the POTW.

Effluent limitations contained in this permit were developed from federal pretreatment standards in 40 CFR Part 471, Nonferrous Metals Forming and Metal Powders Point Source Category, Subpart F-Titanium Forming Subcategory. This permit includes effluent limits for cyanide, lead, zinc, ammonia, fluoride and pH.

Storm water disposal is through a drywell. The discharge of storm water from the facility is permitted through State Storm Water General Permit No. S03-003083 and will not be further addressed in this fact sheet.

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INTRODUCTION

This fact sheet is a companion document to the draft State Waste Discharge Permit No. ST-9211. The Department of Ecology (the Department) is proposing to issue this permit, which will allow discharge of wastewater to the Kennewick POTW. This fact sheet explains the nature of the proposed discharge, the Department's decisions on limiting the pollutants in the wastewater, and the regulatory and technical bases for those decisions.

Washington State law (RCW 90.48.080 and 90.48.160) requires that a permit be issued before discharge of wastewater to waters of the state is allowed. This statute includes commercial or industrial discharges to sewerage systems operated by municipalities or public entities which discharge into public waters of the state. Regulations adopted by the state include procedures for issuing permits and establish requirements which are to be included in the permit (Chapter 173-216 WAC).

This fact sheet and draft permit are available for review by interested persons as described in Appendix A -- Public Involvement Information.

The fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in these reviews have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's response. The fact sheet will not be revised. Changes to the permit will be addressed in Appendix D -- Response to Comments.

GENERAL INFORMATION	
Applicant	TiSport, LLC
Facility Address	1426 East Third Avenue Kennewick, WA 99336
Type of Facility	Nonferrous Metals Fabrication
Facility Discharge Location	Latitude: 46°12' 30" N Longitude: 119° 05' 40" W
Treatment Plant Receiving Discharge	City of Kennewick Publicly-Owned Treatment Works (POTW)
Contact at Facility	Name: Richard Forman Telephone #: (509) 586-6117
Responsible Official	Name: Richard Forman Title: General Manager Address: Same as above Telephone #: Same as above

BACKGROUND INFORMATION

DESCRIPTION OF THE FACILITY

TiSport, LLC, manufactures medical equipment and sporting equipment. The primary medical products manufactured are titanium wheelchairs and crutches. The sporting equipment manufactured includes custom titanium wheelchairs and titanium bicycle frames.
Water is supplied to the facility from the City of Kennewick. Process and sanitary wastewaters are discharged to the POTW.

History

The facility was built in 1986 to house the Titanium Sports Division of Sandvik Special Metals Corporation. Sandvik manufactured the same products that are presently being produced. On July 25, 1997, Sandvik sold the facility to Titanium Sports Technologies, LLC, of Kennewick, Washington. Sandvik continues to supply the facility with its titanium stock.

Effective May 1, 2001 the ownership of the manufacturing plant was transferred to TiSport, LLC from Titanium Sports Technology. The facility is located in two buildings in the Port of

Kennewick Industrial Park, at the intersection of East 3rd Avenue and Oak Street, in southeast Kennewick.

Industrial Processes

Wheelchair and bicycle frame production utilize component machining. Frames are constructed of titanium tubing and plate metal. Frame components are mitered, bent, ovalized, and welded. Prima 3000 synthetic lubricant is used to support these production activities. Welded areas are wiped with acetone, air dried, and the components cleaned in wash tanks. The wash solution consists of Palmolive detergent and water. Components are then rinsed in fresh water and assembled.

Treatment Processes

Since the previous permit was issued the Permittee has succeeded in dramatically decreasing both the amount of water used and the amount of wastewater discharged from the facility. All process wastewater from the facility is discharged to the Kennewick POTW.

Water used in several production processes is re-circulated in closed loop systems or evaporated. Non-contact cooling water is presently circulated in a closed loop system. After being centrifuged to remove the suspended titanium oxide, quench tank water is combined with wastewaters generated by the swaging, grinding, and polishing processes and evaporated. Materials remaining after evaporation are stored in a tote and periodically removed by Safety Clean.

After wheelchair and bicycle frame components are cut and shaped, the products are washed in Palmolive dishwashing detergent and water. Components are then rinsed. Once or twice per week wash and rinse waters must be changed. These spent wash and rinse waters comprise the only process wastewaters discharged by the facility.

PERMIT STATUS

The previous permit for this facility was issued on August 17, 1998.

An application for permit renewal was submitted to the Department on December 20, 2002 and accepted by the Department on January 10, 2003.

SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT

The facility last received an inspection on January 9, 2003.

During the previous permit period, the Permittee has largely remained in compliance based on Discharge Monitoring Reports (DMRs) and other reports submitted to the Department and inspections conducted by the Department.

WASTEWATER CHARACTERIZATION

The concentration of pollutants in the discharge was reported in the permit application and in discharge monitoring reports. The proposed wastewater discharge is characterized for the period January 2001 through March 2003. The information presented in the table below is from the discharge monitoring reports:

Parameter	Average Monthly Concentration	Average Monthly Loading [a]
Cyanide	0.001 mg/L	0.0000003 lbs/day
Lead	0.003 mg/L	0.000001 lbs/day
Zinc	0.2 mg/L	0.000014 lbs/day
Ammonia	4.44 mg/L	0.0012 lbs/day
Fluoride	0.05 mg/L	0.000013 lbs/day

[a] Average Monthly Loading calculation: (average monthly concentration) x (millions gallons / day discharge) x 8.34 = average monthly loading in lbs/day

SEPA COMPLIANCE

There are no SEPA compliance issues associated with this permit.

PROPOSED PERMIT LIMITATIONS

State regulations require that limitations set forth in a waste discharge permit must be based on the technology available to treat the pollutants (technology-based) or be based on the effects of the pollutants to the POTW (local limits). Wastewater must be treated using all known, available, and reasonable methods of prevention, control, and treatment (AKART) and not interfere with the operation of the POTW.

The more stringent of the local limits-based or technology-based limits are applied to each of the parameters of concern. Each of these types of limits is described in more detail below.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS

The Permittee's facility is classified under the Nonferrous Metals Forming and Metal Powders Point Source Category, 40 CFR Part 471, Subpart F-Titanium Forming Subcategory. Standards used to develop the effluent limits contained in this permit are found under 40 CFR Part 471.65, Pretreatment Standards for New Sources (PSNS). The Permittee's discharge is regarded as a "new source" because the facility began production after the adoption of 40 CFR Part 471. In this particular case however, the new source limits given in 40 CFR Part 471.65 are identical to the limits given in 40 CFR Part 471.64 Pretreatment Standards for Existing Sources (PSES).

Effluent limits developed for this permit, like many categorical industries, are production-based. Each step of the production process is assessed and effluent limits are developed for those processes which generate wastewater that is discharged from the facility to the POTW.

Two production processes at this facility generate process wastewater which is discharged to the Kennewick POTW: 1) wastewater generated from the washing after bending and mitering of bicycle frames, wheel chair tubing, as well as custom fabrication, and, 2) wastewater generated from rinsing tubing and frames after the washing process. The applicable federal categories are 40 CFR Part 471.65 (p) alkaline cleaning spent baths, and 40 CFR Part 471.65 (q) alkaline cleaning rinse.

Grinding contact cooling water is evaporated by the Permittee and not discharged from the facility; consequently, the wastewater from this process was not considered when effluent limits are calculated. The permit makes no allowance for the discharge of heat treatment contact cooling water, in accordance with 40 CFR 471.65(l).

The following section of this fact sheet describes the methodology used to develop the effluent limits contained in this permit.

Calculation of Effluent Limitations

In accordance with the development document *(Development Document for Effluent Limitations Guidelines and Standards for the Nonferrous Metals Forming and Metal Powders Point Source Category, Vol. III, p. 2202)*, the effluent limitations in this permit are presented and calculated as pounds of pollutant per off-pound of product metal. An off-pound is calculated from each pound of metal that passes through a step in the production process that generates wastewater. For example, one pound of metal that is cold-rolled twice in succession on the same or tandem rolling mill with a single washing, and then annealed with a single washing represents one off-pound from the cold-rolling process and one off-pound from the annealing process.

Technology-based limits were calculated by multiplying the number of off-pounds occurring in each step of the production process that generates wastewater by an 'allowance,' or multiplier, for each pollutant parameter. There are different multipliers for daily maximum and monthly

average frequencies. Calculations of effluent limits for each parameter are shown in Appendix C. The total off-pound production rate for TiSport is 500 lbs of titanium per day, a value given in the Permittee's application.

Calculated Technology-based Effluent Limitations

Parameter	Average Monthly (lbs/day)	Daily Maximum (lbs/day)
Cyanide	0.00003	0.00008
Lead	0.00005	0.0001
Zinc	0.00016	0.0004
Ammonia	0.015	0.03
Fluoride	0.0068	0.015

This permit allows the Permittee to subtract zinc and fluoride present in the intake water from zinc and fluoride found in process wastewater samples. Subtraction of intake water pollutants from that found in process wastewater is permitted in accordance with Federal regulation (40 CFR 122.45(g) l(ii)).

EFFLUENT LIMITATIONS BASED ON LOCAL LIMITS

In order to protect the City of Kennewick's collection system, an effluent limitation for pH is necessary. This limitation is based on local limits developed by the City of Kennewick. The following are the applicable effluent limits for this discharge: pH is limited to a minimum of 5.5 and to a maximum of 9.5.

COMPARISON OF LIMITATIONS WITH THE EXISTING PERMIT ISSUED AUGUST 1998

Parameter	Previous Average Monthly (lbs/day)	Previous Daily Maximum (lbs/day)	Proposed Average Monthly (lbs/day)	Proposed Daily Maximum (lbs/day)
Cyanide	0.007 [a]	0.017 [a]	0.00003	0.00008
Lead	0.012 [a]	0.025 [a]	0.00005	0.0001
Zinc	0.0001	0.0002	0.00016	0.0004
Ammonia	0.008	0.017	0.015	0.03
Fluoride	0.003	0.008	0.0068	0.015

Parameter	Previous Minimum pH	Previous Maximum pH	Proposed Minimum pH	Proposed Maximum pH
pH	No limit	No limit	5.5	9.5

[a] The previous permit's limits for cyanide and lead (given in S1. Discharge Limitations) are erroneous. The limits in the previous permit for these two pollutants actually represent grams per day instead of the required lbs per day.

The previous permit included Practical Quantitation Level (PQL) concentration limits for Cyanide, Lead, and Zinc. The Department's rationale for the PQL concentration limits was that when off pound production was converted to effluent concentrations, the resultant effluent limits would be below the method or instrument detection level (MDL).

The proposed permit does not contain PQL limits. Effluent flow volumes are much reduced from when the previous permit was developed. The previous permit's fact sheet presumed a 3,000 gallon per day (gpd) discharge. The Permittee has drastically reduced the effluent flow rate to a maximum of 80 gpd. As a result of the lower effluent flow rate, and given a 500 off-pound per day titanium production rate, the presumed concentrations of Cyanide, Lead, and Zinc should be higher than the MDL for these parameters during the duration of the proposed permit.

The development of lbs/day limits for the proposed permit is detailed in this fact sheet's Appendix C – Technical Calculations.

MONITORING REQUIREMENTS

Monitoring, recording, and reporting are specified to verify that the treatment process is functioning correctly, and that effluent limitations are being achieved (WAC 173-216-110).

The monitoring schedule is detailed in the proposed permit under Condition S2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

The Permittee is required to monitor process wastewater discharges for the following categorical parameters: cyanide, lead, zinc, ammonia, and fluoride. Monitoring of these parameters is required by federal regulation. In addition, flow volume must also be monitored to allow for determination of pollutant mass loadings in each discharge.

Monitoring for pH is being required to further characterize the effluent. This pollutant could have an impact on localized portions of the receiving POTW's collection system.

The twice per month monitoring frequency of the previous permit is replaced by a monthly monitoring frequency for this permit cycle. In the best professional judgment of the Department this is a reasonable sampling frequency that will provide assurance that the permit conditions are being met by the Permittee.

The Permittee presently quantifies effluent flow to the POTW by recording the batch discharges of its wash vats with known volumes. Because the total volumes discharged by the facility are small, approximately 80 gallons per day, the Department will not require installation of a flow meter at this time. However, the Department reserves the right to require installation of an effluent flow meter in the future if uncertainties arise concerning flows from the facility.

OTHER PERMIT CONDITIONS

REPORTING AND RECORDKEEPING

The conditions of S3. are based on the authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges (WAC 173-216-110 and 40 CFR 403.12 (e),(g), and (h)).

The Permittee is required to report monitoring results for cyanide, lead, zinc, ammonia and fluoride as concentrations (mg/L) and loading as lbs/day. Flow volumes are required to be reported as gallons per day (gpd). DMRs are required to be submitted to the Department on a quarterly basis, in accordance with Special Condition S3.A. of the permit.

OPERATIONS AND MAINTENANCE

The proposed permit contains condition S.4. as authorized under Chapter 173-216-110 WAC. It is included to ensure proper operation and regular maintenance of equipment, and to ensure that adequate safeguards are taken so that constructed facilities are used to their optimum potential in terms of pollutant capture and treatment.

The only treatment process wastewater undergoes is centrifuging of grind and polish contact cooling water, which is then evaporated. Pollutant levels in other wastewater streams are so low that pretreatment is unnecessary. The operational guidelines for the permittee's discharge are as simple as opening and closing a valve on each of two wash vats.

Additionally, the Spill Prevention and Control Plan Update (S8) stipulates that operator training for containing spills and slug discharges be accomplished. Therefore, an Operations and Maintenance Manual will not be required by this permit.

PROHIBITED DISCHARGES

Certain pollutants are prohibited from being discharged to the POTW. These include substances which cause pass-through or interference, pollutants which may cause damage to the POTW or harm to the POTW workers (Chapter 173-216 WAC) and the discharge of designated dangerous wastes not authorized by this permit (Chapter 173-303 WAC).

DILUTION PROHIBITED

The Permittee is prohibited from diluting its effluent as a partial or complete substitute for adequate treatment to achieve compliance with permit limitations.

SOLID WASTE PLAN

The Department has determined that the Permittee has a potential to cause pollution of the waters of the State from leachate of solid waste.

This proposed permit requires, under the authority of RCW 90.48.080, that the Permittee update the solid waste plan designed to prevent solid waste from causing pollution of the waters of the state and submit it to the Department. The plan must also be submitted to the local solid waste permitting agency for approval, if necessary.

SPILL PLAN

The Department has determined that the Permittee stores a quantity of chemicals that have the potential to cause water pollution if accidentally released. The Department has the authority to require the Permittee to develop best management plans to prevent this accidental release under section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and RCW 90.48.080.

The Permittee has developed a plan for preventing the accidental release of pollutants to state waters and for minimizing damages if such a spill occurs. The proposed permit requires the Permittee to update this plan and submit it to the Department.

GENERAL CONDITIONS

General Conditions are based directly on state laws and regulations and have been standardized for all industrial waste discharge to POTW permits issued by the Department.

Condition G1. requires responsible officials or their designated representatives to sign submittals to the Department. Condition G2. requires the Permittee to allow the Department to access the treatment system, production facility, and records related to the permit. Condition G3. specifies conditions for modifying, suspending or terminating the permit. Condition G4. requires the Permittee to apply to the Department prior to increasing or varying the discharge from the levels stated in the permit application. Condition G5. requires the Permittee to construct, modify, and operate the permitted facility in accordance with approved engineering documents. Condition G6. prohibits the Permittee from using the permit as a basis for violating any laws, statutes or regulations. Conditions G7. and G8. relate to permit renewal and transfer. Condition G9. requires the Permittee to control production or wastewater discharge in order to maintain compliance with the permit. Condition G10. prohibits the reintroduction of removed pollutants into the effluent stream for discharge. Condition G11. requires the payment of permit fees. Condition G12. describes the penalties for violating permit conditions.

PUBLIC NOTIFICATION OF NONCOMPLIANCE

A list of all industrial users which were in significant noncompliance with Pretreatment Standards or Requirements during any of the previous four quarters may be annually published by the Department in a local newspaper. Accordingly, the Permittee is apprised that noncompliance with this permit may result in publication of the noncompliance.

RECOMMENDATION FOR PERMIT ISSUANCE

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics. The Department proposes that the permit be issued for five years.

REFERENCES FOR TEXT AND APPENDICES

Washington State Department of Ecology.

Laws and Regulations(http://www.ecy.wa.gov/laws-rules/index.html)

Permit and Wastewater Related Information
(http://www.ecy.wa.gov/programs/wq/wastewater/index.html

APPENDIX A -- PUBLIC INVOLVEMENT INFORMATION

The Department has tentatively determined to reissue a permit to the applicant listed on page 1 of this fact sheet. The permit contains conditions and effluent limitations which are described in the rest of this fact sheet.

Public notice of application was published on July 24, 2002 in the Tri-City Herald to inform the public that an application had been submitted and to invite comment on the reissuance of this permit.

The Department will publish a Public Notice of Draft (PNOD) on August 27, 2003 in the Tri-City Herald to inform the public that a draft permit and fact sheet are available for review. Interested persons are invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents are available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below. Written comments should be mailed to: Water Quality Permit Coordinator, Department of Ecology, Central Regional Office, 15 West Yakima Avenue, Suite 200, Yakima, WA 98902.

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the thirty (30) day comment period to the address above. The request for a hearing shall indicate the interest of the party and reasons why the hearing is warranted. The Department will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-216-100). Public notice regarding any hearing will be circulated at least thirty (30) days in advance of the hearing. People expressing an interest in this permit will be mailed an individual notice of hearing.

Comments should reference specific text followed by proposed modification or concern when possible. Comments may address technical issues, accuracy and completeness of information, the scope of the facility's proposed coverage, adequacy of environmental protection, permit conditions, or any other concern that would result from issuance of this permit.

The Department will consider all comments received within thirty (30) days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from the Department by telephone, 509/457-7105, or by writing to the address listed above.

This permit was written by Jim Leier.

APPENDIX B -- GLOSSARY

Ammonia—Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

Average Monthly Discharge Limitation—The average of the measured values obtained over a calendar month's time.

Best Management Practices (BMPs)--Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

BOD_5--Determining the Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD_5 is used in modeling to measure the reduction of dissolved oxygen in a receiving water after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

Bypass—The intentional diversion of waste streams from any portion of the collection or treatment facility.

Categorical Pretreatment Standards—National pretreatment standards specifying quantities or concentrations of pollutants or pollutant properties which may be discharged to a POTW by existing or new industrial users in specific industrial subcategories.

Compliance Inspection - Without Sampling--A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

Compliance Inspection - With Sampling--A site visit to accomplish the purpose of a Compliance Inspection - Without Sampling and as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Additional sampling may be conducted.

Composite Sample—A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be

"time-composite"(collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots.

Construction Activity—Clearing, grading, excavation and any other activity which disturbs the surface of the land. Such activities may include road building, construction of residential houses, office buildings, or industrial buildings, and demolition activity.

Continuous Monitoring –Uninterrupted, unless otherwise noted in the permit.

Engineering Report—A document, signed by a professional licensed engineer, which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

Grab Sample—A single sample or measurement taken at a specific time or over as short period of time as is feasible.

Industrial User—A discharger of wastewater to the sanitary sewer which is not sanitary wastewater or is not equivalent to sanitary wastewater in character.

Industrial Wastewater—Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

Interference— A discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal and;

Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), sludge regulations appearing in 40 CFR Part 507, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Local Limits—Specific prohibitions or limits on pollutants or pollutant parameters developed by a POTW.

Maximum Daily Discharge Limitation—The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

Method Detection Level (MDL)--The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is above zero and is determined from analysis of a sample in a given matrix containing the analyte.

Pass-through— A discharge which exits the POTW into waters of the-State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation), or which is a cause of a violation of State water quality standards.

pH—The pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

Potential Significant Industrial User--A potential significant industrial user is defined as an Industrial User which does not meet the criteria for a Significant Industrial User, but which discharges wastewater meeting one or more of the following criteria:

a. Exceeds 0.5 % of treatment plant design capacity criteria and discharges <25,000 gallons per day or;
b. Is a member of a group of similar industrial users which, taken together, have the potential to cause pass through or interference at the POTW (e.g. facilities which develop photographic film or paper, and car washes).

The Department may determine that a discharger initially classified as a potential significant industrial user should be managed as a significant industrial user.

Quantitation Level (QL)-- A calculated value five times the MDL (method detection level).

Significant Industrial User (SIU)--

1) All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N and;

2) Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blow-down wastewater); contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority* on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

Upon finding that the industrial user meeting the criteria in paragraph 2, above, has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the Control Authority* may at any time, on its own initiative or in response to a petition received from an industrial user or POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

*The term "Control Authority" refers to the Washington State Department of Ecology in the case of non-delegated POTWs or to the POTW in the case of delegated POTWs.

Slug Discharge—Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge to the POTW. This may include any pollutant released at a flow rate which may cause interference with the POTW.

State Waters—Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

Stormwater—That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

Technology-based Effluent Limit—A permit limit that is based on the ability of a treatment method to reduce the pollutant.

Total Coliform Bacteria—A microbiological test which detects and enumerates the total coliform group of bacteria in water samples.

Total Dissolved Solids—That portion of total solids in water or wastewater that passes through a specific filter.

Total Suspended Solids (TSS)--Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out

light and can promote and maintain the development of noxious conditions through oxygen depletion.

Water Quality-based Effluent Limit—A limit on the concentration of an effluent parameter that is intended to prevent the concentration of that parameter from exceeding its water quality criterion after it is discharged into a receiving water.

APPENDIX C -- TECHNICAL CALCULATIONS

TiSports CALCULATION OF MASS LOADING EFFULENT LIMITATIONS

	Federal Categorical Limits for Alkaline cleaning spent baths		TiSports Alkaline cleaning spent baths limits	
Parameter	Max Daily (lbs/million off-pounds)	Monthly Average (lbs/million off-pounds)	MAX LBS DAILY [a]	AVERAGE MONTHLY LBS/DAY [a]
Cyanide	0.07	0.029	0.000035	0.0000145
Lead	0.101	0.048	0.0000505	0.000024
Zinc	0.351	0.147	0.0001755	0.0000735
Ammonia	32	14.1	0.016	0.00705
Fluoride	14.3	6.34	0.00715	0.00317
	Federal Categorical Limits for Alkaline cleaning rinse		**TiSports Alkaline cleaning rinse limits**	
Cyanide	0.08	0.033	0.00004	0.0000165
Lead	0.116	0.055	0.000058	0.0000275
Zinc	0.403	0.169	0.0002015	0.0000845
Ammonia	36.8	16.2	0.0184	0.0081
Fluoride	16.4	7.29	0.0082	0.003645

[a] 500 lbs titanium utilized per day divided by one million off-pounds, then multiplied by Federal Catagorical Limits

Addition of alkaline cleaning spent baths and alkaline cleaning rinse off-pounds effluent limits		
Parameter	**Limit Avg Monthly lbs/day**	**Limit Max Daily lbs/day**
Cyanide	0.00003	0.00008
Lead	0.00005	0.0001
Zinc	0.00016	0.0004
Ammonia	0.015	0.03
Fluoride	0.0068	0.015

APPENDIX D -- RESPONSE TO COMMENTS

The Department received the following comments and questions from the Benton-Franklin Health District regarding the Permittee's handling of solid waste and the Solid Waste Control Plan (S7.C) in the permit. Portions of the letter are excerpted below:

Comment 1:

> "Within the section **SOLID WASTE PLAN** on page 12 of the *Fact Sheet* the following information is provided, "The Department has determined that the Permittee has a potential to cause pollution of the waters of the State from leachate of solid waste."

Question 1:

> What is in their solid waste stream to formulate this determination?

Department's response:

> *Solid waste streams created by industrial processes at the facility are listed in the Permittee's 2001 Solid Waste Control Plan. The listed solids wastes include 1) Solids which are created after waste swage coolant which is evaporated, 2) wood waste, 3) used aluminum oxide and silicon carbide grit, 4) tube grinding swarf, 4) titanium turnings, 5) titanium, aluminum, and steel scrap, 6) empty barrels, and 7) miscellaneous plant waste and/or garbage.*

Question 2:

> Does their waste stream contain materials that could be classified as a dangerous or hazardous waste?

Department's response:

> *Information provided to the Department by TiSport indicates that any potential dangerous or hazardous waste produced at the facility will be removed from its facility by an approved hazardous waste removal company.*

Question 3:

Is this issue currently addressed in their current **Solid Waste Control Plan?**

Department's response:

The Permittee's current Solid Waste Control Plan details the handling of all solid wastes with the exception of those solid wastes regulated by Chapter 173-303 WAC (Dangerous Waste Regulations).

Comment 2:

The proposed permit, and RCW, requires that the Permittee update their solid waste plan prior to one year before the expiration of their new permit. It seems logical that any changes needed to protect the waters of the State or assurance of proper solid wastes handling, needs to be in the Solid Waste Control Plan prior to permit issuance.

Question 4:

Again, are these issues addressed adequately in the current **Solid Waste Control Plan**?

Department's response:

The Permittee's current Solid Waste Control Plan (dated February 23, 2001) implements the solid waste provisos given in the previous permit. An updated Solid Waste Control Plan is required to detail any changes to industrial processes and changes to the company's legal name since the previous permit was issued in 1997.

Question 5:

If not, shouldn't they be addressed prior to this permit renewal?"

Department's response:

The Department requires that the Permittee handles its solid wastes in a manner that will prevent contamination of the waters of the State. RCW 70.95.240 prohibits unlawful dumping or depositing solid waste without a permit. Because these permits are issued by and are under the jurisdiction of local health departments, the State wastewater discharge permit does not address that aspect of the facility's solid waste program.